# Auto Shredder Residue

# PBDE Emissions from ASR in WA

- No sampling in WA of auto fluff piles of PBDE emissions to air, water or land
- 108,081 lbs. landfilled in 2004
- Concentration of PBDEs in auto fluff is unknown
  - No sampling data identified in literature
  - Varies by manufacturer and year
  - Varies by input (other sources than just autos)
  - Volvo is the only manufacturer that has stated it no longer uses PBDEs

# ASR Facilities in WA

- 3 facilities in WA- Tacoma, Vancouver/Kelso, & Seattle
- Tacoma facility handles majority of state's auto fluff
  - Mixed with Portland cement – like material and used as daily cover on Pierce County landfill.

# Key Pathways

- Air- UC Davis study examined ambient air upwind and downwind of an outdoor auto shredder (not pile)
  - PBDE concentrations downwind of the site were elevated even when there was no shredding taking place
  - Authors suggest this due to off-gassing or dust re-suspension
  - Considerable variability in data, especially for BDE-209
  - Authors concluded that shredder appeared to be a point source of PBDEs to air
- Water- No data identified in literature

# Potential Risks

- Literature indicates significant high use high use in cars
- PBDEs from auto fluff pile could enter nearby water
  - Treated runoff
  - Settle out from airborne particulates

# Key Uncertainties

- Variability in concentration of PBDEs in auto fluff
- Quantity released from auto fluff pile to air or water

# Potential Management Options

- If PBDEs are released to air:
  - Put the pile in an enclosed structure with a positive air pressure. Ventilation fans should have filters on them that will capture PBDEs; filters should be disposed of as hazardous waste, if designate.
  - No action.
- If PBDEs are released in treated runoff:
  - Require that runoff be pretreated through a settling/coagulation process (or some other process shown to remove PBDEs) and dispose of sludge in a hazardous waste landfill.
  - Dispose of the runoff as a dangerous waste.
  - No action.